



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,380	02/17/2004	Young H. Kim	CL2207USNA1	1816

43693 7590 07/07/2006

INVISTA NORTH AMERICA S.A.R.L.
THREE LITTLE FALLS CENTRE/1052
2801 CENTERVILLE ROAD
WILMINGTON, DE 19808

EXAMINER

MIGGINS, MICHAEL C

ART UNIT	PAPER NUMBER
----------	--------------

1772

DATE MAILED: 07/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/780,380	Applicant(s) KIM ET AL.	
	Examiner Michael C. Miggins	Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

REJECTIONS WITHDRAWN

1. All of the rejections and objections set forth in the non-final rejection 1/19/06, pages 2-12, paragraphs 3-13 have been withdrawn.

REJECTIONS REPEATED

2. There are no rejections repeated.

NEW REJECTIONS

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderle et al. (WO 02/08327 A1) in view of Mosbach et al. (US 4764553) and the admitted prior art.

Anderle discloses an article made from a polyurethane aqueous dispersion (page 5, lines 5-19) wherein the polyurethane comprises a THF copolymer (page 11, lines 13-22) and an aromatic diisocyanate (page 6, lines 15-19 and page 7, lines 19-22), wherein said article is selected from the group consisting of gloves, finger cots and condoms (page 28, lines 11-14), having a tensile strength of greater than 2030 psi and having an

Art Unit: 1772

improved resistance to solvent attack (page 56, Table 1, Example 45) (applies to instant claims 1-3 and 6).

Anderle fails to disclose a polyurethane which comprises a THF copolymer soft segment comprising 25-60 percent by weight of ethylene glycol as a comonomer.

Mosbach discloses that it is well known to use a THF copolymer and ethylene glycol copolymer in a water dispersible polyurethane (column 1, lines 9-15, column 4, lines 50-66, column 5, lines 20-35) in order to obtain a better polyurethane dispersion (see advantages listed in column 2, lines 10-27).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided to use a THF copolymer and ethylene glycol copolymer in a water dispersible polyurethane in the polyurethane of Anderle in order to provide a better polyurethane dispersion.

Applicant admits on page 5, lines 21-35 that methods for producing a THF copolymer soft segment comprising 25-60 percent by weight of ethylene glycol as a comonomer are known and provide a good dispersion (applies to instant claim 1).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided a polyurethane which comprises a THF copolymer soft segment comprising 25-60 percent by weight of ethylene glycol as a comonomer in the article of Anderle in order to provide a good dispersion as taught or suggested by the admitted prior art.

Art Unit: 1772

5. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderle et al. (WO 02/08327 A1) in view of Mosbach et al. (US 4764553) and the admitted prior art, as applied to claims 1-3 and 6 above, and further in view of Baumann et al. (US 5198523).

The combined teachings of Anderle and the admitted prior art disclose the claimed invention except for the puncture and tear strength recited in claims 4-5. However, Baumann et al. disclose a puncture strength of 50-75 N and a tear strength of 50-75 N (column 3, line 68 through column 4, line 8). Thus one of ordinary skill in the art would have recognized that the puncture and tear strength recited in claims 4-5 would be readily determined through routine experimentation depending on the desired end results absent some showing of unexpected results. Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the puncture and tear strength recited in claims 4-5 in order to provide a glove which has improved resistance to tearing and puncturing, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges or an optimum value of a result effective variable involves only routine skill in the art (applies to instant claims 4-5). *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderle et al. (WO 02/08327 A1) in view of Mosbach et al. (US 4764553) and the admitted prior art and Lipkin et al. (US 5998540).

Anderle discloses an article made from a polyurethane aqueous dispersion (page 5, lines 5-19) wherein the polyurethane comprises a THF copolymer (page 11, lines 13-22) and an aromatic diisocyanate (page 6, lines 15-19 and page 7, lines 19-22), wherein said article is selected from the group consisting of gloves, finger cots and condoms (page 28, lines 11-14), having a tensile strength of greater than 2030 psi and having an improved resistance to solvent attack (page 56, Table 1, Example 45) (applies to instant claims 1-3 and 6).

Anderle fails to disclose a polyurethane which comprises a THF copolymer soft segment comprising 25-60 percent by weight of ethylene glycol as a comonomer.

Mosbach discloses that it is well known to use a THF copolymer and ethylene glycol copolymer in a water dispersible polyurethane (column 1, lines 9-15, column 4, lines 50-66, column 5, lines 20-35) in order to obtain a better polyurethane dispersion (see advantages listed in column 2, lines 10-27).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided to use a THF copolymer and ethylene glycol copolymer in a water dispersible polyurethane in the polyurethane of Anderle in order to provide a better polyurethane dispersion.

Applicant admits on page 5, lines 21-35 that methods for producing a polyurethane which comprises a THF copolymer soft segment comprising 25-60 percent by weight of ethylene glycol as a comonomer are known and provide a good dispersion (applies to instant claim 1).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided a polyurethane which comprises a THF copolymer soft segment comprising 25-60 percent by weight of ethylene glycol as a comonomer in the article of Anderle in order to provide a good dispersion as taught or suggested by the admitted prior art.

Anderle fails to disclose dipping a mold into a coagulant solution and drying at an elevated temperature, dipping the coagulant solution-coated mold into an aqueous polyurethane dispersion and drying, subjecting the coated mold to a salt leaching bath, and the drying the coated mold at elevated temperature before stripping the article off of said mold.

Lipkin discloses dipping a mold into a coagulant solution and drying at an elevated temperature, dipping the coagulant solution-coated mold into an aqueous polyurethane dispersion and drying, subjecting the coated mold to a salt leaching bath, and the drying the coated mold at elevated temperature before stripping the article off of said mold (column 6, lines 38-49) for the purpose of providing a film with excellent physical properties.

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided dipping a mold into a coagulant solution and drying at an elevated temperature, dipping the coagulant solution-coated mold into an aqueous polyurethane dispersion and drying, subjecting the coated mold to a salt leaching bath, and the drying the coated mold at elevated temperature before

Art Unit: 1772

stripping the article off of said mold in the article of Anderle in order to provide a film with excellent physical properties as taught or suggested Lipkin.

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-19 of copending Application No. 10/700,859 and claims 1-8 of copending Application No. 10/701,317 in view of Mosbach et al. (US 4764553) and the admitted prior art.

Claims 1-19 of copending Application No. 10/700,859 and claims 1-8 of copending Application No. 10/701,317 both recite an article made from a polyurethane aqueous dispersion and an aromatic diisocyanate.

Art Unit: 1772

Neither claims 1-19 of copending Application No. 10/700,859 nor claims 1-8 of copending Application No. 10/701,317 recite a polyurethane which comprises a THF copolymer soft segment comprising 25-60 percent by weight of ethylene glycol as a comonomer.

Mosbach discloses that it is well known to use a THF copolymer and ethylene glycol copolymer in a water dispersible polyurethane (column 1, lines 9-15, column 4, lines 50-66, column 5, lines 20-35) in order to obtain a better polyurethane dispersion (see advantages listed in column 2, lines 10-27).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided to use a THF copolymer and ethylene glycol copolymer in a water dispersible polyurethane in order to provide a better polyurethane dispersion.

Applicant admits on page 5, lines 21-35 that methods for producing a polyurethane which comprises a THF copolymer soft segment comprising 25-60 percent by weight of ethylene glycol as a comonomer are known and provide a good dispersion (applies to instant claim 1).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided a polyurethane which comprises a THF copolymer soft segment comprising 25-60 percent by weight of ethylene glycol as a comonomer in the article of recited in claims 1-19 of copending Application No. 10/700,859 or claims 1-8 of copending Application No. 10/701,317 in order to provide a good dispersion as taught or suggested by the admitted prior art.

This is a provisional obviousness-type double patenting rejection.

9. Claims 2-3 and 6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-19 of copending Application No. 10/700,859 and claims 1-8 of copending Application No. 10/701,317 in view of Mosbach et al. (US 4764553) and the admitted prior art, as applied to claim 1 above, and further in view of Anderle et al. (WO 02/08327 A1).

Neither claims 1-19 of copending Application No. 10/700,859 nor claims 1-8 of copending Application No. 10/701,317 recite an article made from a polyurethane aqueous dispersion wherein said article is selected from the group consisting of gloves, finger cots and condoms, having a tensile strength of greater than 2030 psi and having an improved resistance to solvent attack.

Anderle discloses an article made from a polyurethane aqueous dispersion wherein said article is selected from the group consisting of gloves, finger cots and condoms (page 28, lines 11-14), having a tensile strength of greater than 2030 psi and having an improved resistance to solvent attack (page 56, Table 1, Example 45) (applies to instant claims 2-3 and 6) for the purpose of providing lower modulus articles.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided an article made from a polyurethane aqueous dispersion wherein said article is selected from the group consisting of gloves, finger cots and condoms, having a tensile strength of greater than 2030 psi and having an

improved resistance to solvent attack in order to provide lower modulus articles as taught or suggested by Anderle.

This is a provisional obviousness-type double patenting rejection.

10. Claims 4-5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-19 of copending Application No. 10/700,859 and claims 1-8 of copending Application No. 10/701,317 in view of Mosbach et al. (US 4764553) and the admitted prior art, as applied to claim 1 above, and further in view of Baumann et al. (US 5198523).

The combination claims 1-19 of copending Application No. 10/700,859 and claims 1-8 of copending Application No. 10/701,317 and the admitted prior art disclose the claimed invention except for the puncture and tear strength recited in claims 4-5. However, Baumann et al. disclose a puncture strength of 50-75 N and a tear strength of 50-75 N (column 3, line 68 through column 4, line 8). Thus one of ordinary skill in the art would have recognized that the puncture and tear strength recited in claims 4-5 would be readily determined through routine experimentation depending on the desired end results absent some showing of unexpected results. Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the puncture and tear strength recited in claims 4-5 in order to provide a glove which has improved resistance to tearing and puncturing, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges or an optimum value of a result effective variable

Art Unit: 1772

involves only routine skill in the art (applies to instant claims 4-5). *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

This is a provisional obviousness-type double patenting rejection.

11. Claim 7 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-19 of copending Application No. 10/700,859 and claims 1-8 of copending Application No. 10/701,317 in view of Mosbach et al. (US 4764553) and the admitted prior art and Lipkin et al. (US 5998540).

Claims 1-19 of copending Application No. 10/700,859 and claims 1-8 of copending Application No. 10/701,317 both recite an article made from a polyurethane aqueous dispersion and an aromatic diisocyanate.

Neither claims 1-19 of copending Application No. 10/700,859 nor claims 1-8 of copending Application No. 10/701,317 recite a polyurethane which comprises a THF copolymer soft segment comprising 25-60 percent by weight of ethylene glycol as a comonomer.

Mosbach discloses that it is well known to use a THF copolymer and ethylene glycol copolymer in a water dispersible polyurethane (column 1, lines 9-15, column 4, lines 50-66, column 5, lines 20-35) in order to obtain a better polyurethane dispersion (see advantages listed in column 2, lines 10-27).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided to use a THF copolymer and ethylene

Art Unit: 1772

glycol copolymer in a water dispersible polyurethane in order to provide a better polyurethane dispersion.

Applicant admits on page 5, lines 21-35 that methods for producing a polyurethane which comprises a THF copolymer soft segment comprising 25-60 percent by weight of ethylene glycol as a comonomer are known and provide a good dispersion (applies to instant claim 1).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided a polyurethane which comprises a THF copolymer soft segment comprising 25-60 percent by weight of ethylene glycol as a comonomer in the article of recited in claims 1-19 of copending Application No. 10/700,859 or claims 1-8 of copending Application No. 10/701,317 in order to provide a good dispersion as taught or suggested by the admitted prior art.

Neither claims 1-19 of copending Application No. 10/700,859 nor claims 1-8 of copending Application No. 10/701,317 recite dipping a mold into a coagulant solution and drying at an elevated temperature, dipping the coagulant solution-coated mold into an aqueous polyurethane dispersion and drying, subjecting the coated mold to a salt leaching bath, and the drying the coated mold at elevated temperature before stripping the article off of said mold.

Lipkin discloses dipping a mold into a coagulant solution and drying at an elevated temperature, dipping the coagulant solution-coated mold into an aqueous polyurethane dispersion and drying, subjecting the coated mold to a salt leaching bath, and the drying the coated mold at elevated temperature before stripping the article off of

Art Unit: 1772

said mold (column 6, lines 38-49) for the purpose of providing a film with excellent physical properties.

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided dipping a mold into a coagulant solution and drying at an elevated temperature, dipping the coagulant solution-coated mold into an aqueous polyurethane dispersion and drying, subjecting the coated mold to a salt leaching bath, and the drying the coated mold at elevated temperature before stripping the article off of said mold in the article of Anderle in order to provide a film with excellent physical properties as taught or suggested Lipkin.

This is a provisional obviousness-type double patenting rejection.

ANSWERS TO APPLICANT'S ARGUMENTS

12. Applicant's arguments filed 4/19/06 have been considered but are moot in view of the new grounds for rejection set forth above.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

Art Unit: 1772

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

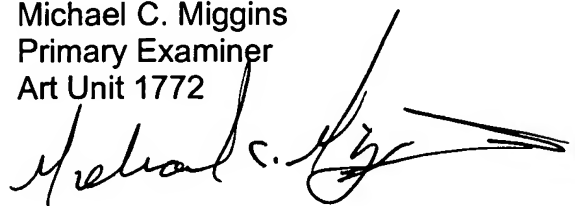
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is 571-272-1494. The examiner can normally be reached on 1:00-10:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MCM

Michael C. Miggins
Primary Examiner
Art Unit 1772

A handwritten signature in black ink, appearing to read "Michael C. Miggins", with a long horizontal flourish extending to the right.

Application/Control Number: 10/780,380

Page 15

Art Unit: 1772

June 26, 2006